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10/736,723	12/15/2003	Kalman A. Lifson	020776.0119	3576
5073 7590 06/25/2008 BAKER BOTTS L.L.P. 2001 ROSS AVENUE SUITE 600 DALLAS, TX 75201-2980			EXAMINER SEE, CAROL A	
			ART UNIT 3696	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/736,723

Applicant(s)

LIFSON, KALMAN A.

Examiner

Carol See

Art Unit

3696

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/15/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. A telephone interview was conducted with Messrs. Wille and Shui on 1/31/2008 during which Examiner made a request for oral election to a restriction requirement and Applicant agreed. Restriction was made between inventions 1, claims 1-18 and invention II, claims 19-25. Applicant subsequently cancelled claims 19-25.
2. Upon further review of the record, Examiner has determined that a restriction requirement is not warranted. Accordingly, the restriction requirement has been withdrawn, and examination on the merits of original claims 1-10, 19-25 and amended claims 11-18 is presented below.

Claim Objections

3. Claims 1, 11 and 19-25 objected to because of the following informalities:
 - claims 19-25 - preamble of independent claim 19 refers to investment portfolio while preamble of dependent claims 20-25 refers to stock portfolio. Consistency of language is required.
 - claims 1, 11 and 19 – in presentation of a claim that includes, for example, multiple steps or multiple parts to a system, the word “and” should be inserted immediately prior to the final step or final system component.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1 and 19 are rejected under 35 U.S.C. 101 because the claimed inventions are directed to non-statutory subject matter. Claims 2-10 are rejected because they depend from claim 1. Claims 20-25 are rejected as depending from claim 19.

6. Under the statutory requirement of 35 U.S.C. § 101, a claimed invention must fall within one of four statutory categories – process, machine, article of manufacture or composition of matter. If a claimed invention does not fit one of these categories, it must be evaluated to determine if it is a practical application of a judicial exception – i.e., it produces a physical transformation or a useful, concrete, and tangible result. For a claimed invention to be useful, it must yield a result that is specific, substantial, and credible (MPEP § 2107). A concrete result is one that is substantially repeatable, i.e., it produces substantially the same result over and over again (*In re Swartz*, 232 F.3d 862, 864, 56 USPQ2d 1703, 1704 (Fed. Cir. 2000)). In order to be tangible, a claimed invention must set forth a practical application that generates a real-world result, i.e., the claim must be more than a mere abstraction (*Benson*, 409 U.S. at 71-72, 175 USPQ at 676-77). Additionally, a claim may not preempt abstract ideas, laws of nature or natural phenomena nor may a claim preempt every “substantial practical application” of an abstract idea, law of

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nature or natural phenomena because it would in practical effect be a patent on the judicial exceptions themselves (*Gottschalk v. Benson*, 409 U.S. 63, 71-72 (1972)).

As to claim 1, applicant's claim to a method for investing does not qualify as a proper process claim because the method recites purely mental steps. In performing the steps of claim 1, Applicant does not positively recite another statutory class (apparatus or article) to which the method is tied, for example, by identifying the apparatus that accomplishes the method steps. Therefore, the claimed subject matter may be performed using only human intelligence, which has recently been held to be non-statutory. (i.e., a machine, manufacture, or composition of matter). In re Comiskey, No. 2006-1286, (Fed. Cir. Sep. 20, 2007), 17-21. Accordingly, claim 1 is rejected because the claimed process does not qualify as a statutory process. Claims 2-10 are rejected as depending from claim 1.

As to claim 19, directed toward an investment portfolio, the claimed invention does not fit into any of the above-described categories, and is therefore rejected as directed to non-statutory subject matter. Claims 20-25 are rejected as depending from claim 19.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-10, 17, 21 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention. Claims 2-10 are rejected as depending from claim 1.

As to claim 1, Applicant presents a method claim, yet fails to positively recite all steps of the method. Particularly, use of the word “based” is not indicative of an action occurring as part of a process. Further “the entity” lacks antecedent basis in the claim.

As to claim 2, Applicant sets forth a method step, further comprising; however, Applicant fails to positively recite additional steps of the method. Particularly, use of the word “wherein” is not indicative of an action occurring as part of a process.

Further, as to claims 8, 17 and 24, the meaning of “consensus prediction” is unclear. Examiner interprets as “prediction.”

Further, as to claim 10, Applicant presents a method claim, yet fails to positively recite all steps of the method. Particularly, use of the word “for” is not indicative of an action occurring as part of a process.

As to claim 21, the recitation of the body of the claim makes it unclear as to the scope of what Applicant is claiming. The meaning of “the equation further comprising a weighted average of results from a plurality of additional equations” is unclear. For example, what are these additional equations created using regression techniques?

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1, 3-4, 6-7, 9, 11, 15-16, 18-19, 22-23 and 25 are rejected under 35

U.S.C. 102(b) as being anticipated by Li (U.S. 6,453,303).

As to claim 1, Li shows a method for investing, comprising:

creating an equation for a plurality of stocks, wherein the equation is created using multiple linear regression techniques to calculate a plurality of coefficients each associated with one of a plurality of statistic types that is correlated with actual market prices of the plurality of stocks wherein at least some of the plurality of statistic types comprise financial information, other than the particular stock's past market price, specific to the entity associated with the particular stock (col. 4, lines 40-59 and col. 5, lines 27-54, showing calculation of coefficients using historical and real time data, and linear regression);

using the equation to estimate the degree to which a stock or stocks are over-priced or under-priced relative to the price of other ones of the plurality of stocks (col. 4, lines 40-59 and col. 5, lines 27-54, showing calculation of coefficients using historical and real time data, including Beta (from linear regression), then using this information to determine if asset is overbought or oversold);

based upon the estimates made using the equation, purchasing or selling at least some stocks, futures contracts on at least some stocks, or options on at least some stocks, in the plurality of stocks (col. 5, line 40 through col. 6, line 11-21, showing calculations and analysis of various indicators and recommendations to buy or sell based on that information).

As to claim 3, Li shows all elements of claim 1. Li further shows wherein at least one of a plurality of statistic types comprises a financial statistic that is non-unique to any particular stock in the plurality of stocks (col. 6, lines 36- 40, showing consideration of interest rates in conjunction with col. 4, lines 40-59 and col. 5, lines 27-54, showing calculation of coefficients using historical and real time data).

As to claim 4, Li shows all elements of claim 1. Li further shows wherein creating an equation further comprises calculating the plurality of coefficients using at least one stepwise linear regression (col. 4 lines 40-60, showing calculation of coefficients with linear regression techniques).

As to claim 6, Li shows all elements of claim 1. Li further shows wherein at least some stocks are rejected from consideration for purchasing or selling based upon a first elimination criterion (col. 5, lines 50-54, showing determination of overbought assets, indicating rejection from being purchased because it is too expensive).

As to claim 7, Li shows all elements of claim 6. Li further shows a first elimination criterion comprising at least one criteria selected from the group comprising: insufficient liquidity, operation at a loss, a dramatic recent change in share price, sensitivity to interest rate changes, a price to earnings ratio above a particular threshold, and a price to earnings ratio below a particular threshold (col. 4, lines 46 – 59, showing Beta as a quantitative measure of volatility (price change) in conjunction with col. 6, lines 45-48, showing buy/sell advice given based on this information).

As to claim 9, Li shows all elements of claim 1.

Applicant's recitation "wherein at least some of the plurality of statistics comprise data that must be reported to a government entity" constitutes nonfunctional descriptive material that does not further limit the claimed invention. This type of information, relating to the type of data being processed in the method steps, is not functionally related to the performance of the method step. Accordingly, this recitation is not given patentable weight. See *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 403-04 (Fed. Cir. 1983).

As to claim 11, Li shows a system for investing, comprising:

software contained within a computer-readable medium (abstract, col. 4, lines 15-45) and when executed operable to:

create an equation for a plurality of stocks, wherein the equation is created using regression techniques to calculate a plurality of coefficients each associated with one of a plurality of statistic types that is correlated with a first value measure of the plurality of stocks (col. 4, lines 40-59 and col. 5, lines 27-54, showing calculation of coefficients using historical and real time data, and linear regression);

wherein the first value measure comprises a value measure selected from the group consisting of actual market price, price to earnings ratio, price to book value ratio, and price to revenue ratio (col. 8, lines 40-45 and fig. 3);

use the equation to estimate the degree to which ones of the plurality of stocks are over-valued or under-valued relative to the plurality of stocks as a whole (col. 4, lines 40-59 and col. 5, lines 27-54, showing calculation of coefficients using historical and real time data, including Beta (from linear regression), then using this information to determine if asset is overbought or oversold);

based upon the estimates made using the equation, purchase or sell at least some stocks, futures contracts on at least some stocks, or options on at least some stocks, in the plurality of stocks (col. 5, line 40 through col. 6, line 11-21, showing calculations and analysis of various indicators and recommendations to buy or sell based on that information).

As to claim 15, Li shows all elements of claim 11. Li further shows wherein at least some stocks are rejected from consideration for purchasing or selling based upon a first elimination criterion (col. 5, lines 50-54, showing determination of overbought assets, indicating rejection from being purchased because they are too expensive).

As to claim 16, Li shows all elements of claim 15. Li further shows wherein the first elimination criterion comprises at least one criteria selected from the group comprising: insufficient liquidity, operation at a loss, a dramatic recent change in share price, sensitivity to interest rate changes, a price to earnings ratio above a particular threshold, and a price to earnings ratio below a particular threshold (col. 4, lines 46 – 59, showing Beta as a quantitative measure of volatility (price change)).

As to claim 18, Li shows all elements of claim 11.

Applicant's recitation "wherein at least some of the plurality of statistic types comprise statistics that must be reported to a government entity" constitutes nonfunctional descriptive material that does not further limit the claimed invention. This type of information is not functionally related to the method. Accordingly, this recitation is not given patentable weight. See *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 403-04 (Fed. Cir. 1983).

As to claim 19, Li shows an investment portfolio, comprising:

a plurality of investments owned by an individual or entity, wherein at least some investments in the portfolio comprise investments that were purchased at least partially in response to a valuation estimate estimating the degree of over-valuation or under-valuation of each of a plurality of stocks relative to the plurality of stocks as a whole; wherein ones of the plurality of investments comprise a stock, option on an individual stocks, or futures contract on an individual stocks (col. 1, lines 14 through col. 2, line 5, showing reason for system is to allow investors to buy/sell assets based on data calculation and analysis and subsequent advice of system),

wherein the valuation estimate was determined by

creating an equation for the plurality of stocks, wherein the equation is created using regression techniques to calculate a plurality of coefficients each associated with one of a plurality of statistic types that is correlated with a first value measure of the plurality of stocks wherein at least some of the plurality of statistic types comprise financial information, other than the particular stock's past market price, specific to the entity associated with the particular stock (col. 4, lines 40-59 and col. 5, lines 27-54, showing calculation of coefficients using historical and real time data, and linear regression);

wherein the first value measure comprises a value measure selected from the group consisting of actual market price, price to earnings ratio, price to book value ratio, and price to revenue ratio (col. 8, lines 40-45 and fig. 3);

using the equation to estimate the degree to which ones of the plurality of stocks are over-valued or under-valued relative to the plurality of stocks as a whole (col. 5, lines 51-54).

As to claim 22, Li shows all elements of claim 19. Li further shows wherein at least some stocks are rejected from consideration for inclusion in the portfolio based upon a first elimination criterion (col. 5, lines 50-54, showing determination of overbought assets, indicating rejection from being purchased because it is too expensive).

As to claim 23, Li shows all elements of claim 22. Li further shows wherein the first elimination criterion comprises at least one criteria selected from the group comprising: insufficient liquidity, operation at a loss, a dramatic recent change in share price, sensitivity to interest rate changes, a price to earnings ratio above a particular threshold, and a price to earnings ratio below a particular threshold (col. 4, lines 46 – 59, showing Beta as a quantitative measure of volatility (price change)).

As to claim 25, Li shows all elements of claim 19.

Applicant's recitation "wherein at least some of the plurality of statistics comprise statistics that must be reported to a government entity" constitutes nonfunctional descriptive material that does not further limit the claimed invention. This type of information is not functionally related to the method. Accordingly, this recitation is not given patentable weight. See *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 403.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 2, 8, 13, 17, 20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li in view of Multiple Regression website (2002)(hereinafter referred to as "MR website.")

As to claim 2, Li shows all elements of claim 1.

Li does not specifically show iteratively performing linear regression wherein outliers are eliminated from use in creating the equation after at least one iteration; nor does the combination show outliers comprising points whose values as determined by the most recent iteration of the regression exceeds a threshold multiple of standard deviations.

The MR website teaches a regression line with outliers that may be eliminated from consideration after an initial calculation shows values that lie outside an overall pattern (pg. 6). Elimination of those values requires a subsequent calculation that does not include that value. The MR website further teaches that outliers may be determined as those points lying more than 2 standard deviations from an estimated value (pg. 12).

It would have been obvious to one of ordinary skill in the art to have modified the invention disclosed in Li by the teaching of the MR website in order to manage those values appearing to lie outside a general pattern (pg. 6).

Applicant's recitation of a "stock" used in the equation constitutes nonfunctional descriptive material that does not further limit the claimed invention. This type of information is not functionally related to the method. Accordingly, this recitation is not given patentable weight. See *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 403-04 (Fed. Cir. 1983).

As to claim 8, Li shows all elements of claim 6.

Li does not specifically show a first elimination criterion determined using additional linear regression to determine a consensus prediction of the value of a particular financial statistic and wherein the first elimination criteria comprises eliminating stocks where the actual value of the particular financial statistic for a stock exceeds a threshold variance from the consensus prediction of the value of the particular financial statistic for the stock.

The MR website teaches a first elimination criterion determined using additional linear regression to determine a consensus prediction of the value of a particular variable wherein the first elimination criteria comprises eliminating those points where the actual value of the particular variable exceeds a threshold variance from the consensus prediction of the value of the particular variable at that point (page 12, indicating elimination of outliers of a value more than 2 standard deviations from a predicted value).

It would have been obvious to one of ordinary skill in the art to have modified the invention disclosed in Li by the teaching of the MR website in order to manage those values appearing to lie outside a general pattern (pg. 6).

Applicant's recitation of a "financial statistic" regarding a stock being the value used in the equation constitutes nonfunctional descriptive material that does not further limit the

claimed invention. This type of information, relating to the type of data being processed in the method, is not functionally related to the method. Accordingly, this recitation is not given patentable weight. See *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 403-04 (Fed. Cir. 1983).

As to claim 13, Li shows all elements of claim 11.

Li does not specifically show at some point before final creation of the equation, eliminate at least one stock from the plurality of stocks for use in determining the equation based upon a numerical criteria indicating that the at least one stock comprises an outlier from a statistical point of view.

The MR website shows at some point before final creation of the equation, eliminating at least one point from the plurality of points for use in determining the equation based upon a numerical criteria indicating that the at least one point comprises an outlier from a statistical point of view (pg. 6).

It would have been obvious to one of ordinary skill in the art to have modified the invention disclosed in Li by the teaching of the MR website in order to manage those values appearing to lie outside a general pattern (pg. 6).

Applicant's recitation of a "stock" used in the equation constitutes nonfunctional descriptive material that does not further limit the claimed invention. This type of information is not functionally related to the method. Accordingly, this recitation is not given patentable weight. See *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 403-04 (Fed. Cir. 1983).

As to claim 17, Li shows all elements of claim 15.

Li does not specifically show wherein the first elimination criterion itself is determined using additional linear regression to determine a consensus prediction of the value of a particular financial statistic and wherein the first elimination criteria comprises eliminating stocks where the actual value of the particular financial statistic for a stock exceeds a threshold variance from the consensus prediction of the value of the particular financial statistic for the stock.

The MR website teaches a first elimination criterion determined using additional linear regression to determine a consensus prediction of the value of a particular variable wherein the first elimination criteria comprises eliminating points where the actual value of the variable for a point exceeds a threshold variance from the consensus prediction of the value of the particular variable for the point (page 12, indicating elimination of outliers of a value more than 2 standard deviations from a predicted value).

It would have been obvious to one of ordinary skill in the art to have modified the invention disclosed in Li by the teaching of the MR website in order to manage those values appearing to lie outside a general pattern (pg. 6).

Applicant's recitation of a "financial statistic" regarding a stock being the value used in the equation constitutes nonfunctional descriptive material that does not further limit the claimed invention. This type of information is not functionally related to the method. Accordingly, this recitation is not given patentable weight. See *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 403-04 (Fed. Cir. 1983).

As to claim 20, Li shows all elements of claim 19.

Li does not specifically show a value estimate further determined by at some point before final creation of the equation, eliminating at least one stock from the plurality of stocks for use in determining the equation based upon a numerical criteria indicating that the at least one stock comprises an outlier from a statistical point of view.

The MR website teaches at some point before final creation of the equation, eliminating at least one point from the plurality of points for use in determining the equation based upon a numerical criteria indicating that the at least one point comprises an outlier from a statistical point of view (pg. 6).

It would have been obvious to one of ordinary skill in the art to have modified the invention disclosed in Li by the teaching of the MR website in order to manage those values appearing to lie outside a general pattern (pg. 6).

Applicant's recitation of a "stock" used in the equation constitutes nonfunctional descriptive material that does not further limit the claimed invention. This type of information is not functionally related to the method. Accordingly, this recitation is not given patentable weight. See *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 403-04 (Fed. Cir. 1983).

As to claim 24, Li shows all elements of claim 22.

Li does not specifically show wherein the first elimination criterion itself is determined using additional linear regression to determine a consensus prediction of the value of a particular financial statistic and wherein the first elimination criteria comprises eliminating stocks where the actual value of the particular financial statistic for a stock exceeds a

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threshold variance from the consensus prediction of the value of the particular financial statistic for the stock.

The MR website teaches a first elimination criterion determined using additional linear regression to determine a consensus prediction of the value of a particular variable wherein the first elimination criteria comprises eliminating points where the actual value of the particular variable exceeds a threshold variance from the consensus prediction of the value of the variable (page 12, indicating elimination of outliers of a value more than 2 standard deviations from a predicted value).

It would have been obvious to one of ordinary skill in the art to have modified the invention disclosed in Li by the teaching of the MR website in order to manage those values appearing to lie outside a general pattern (pg. 6).

Applicant's recitation of a "financial statistic" regarding a stock being the value used in the equation constitutes nonfunctional descriptive material that does not further limit the claimed invention. This type of information is not functionally related to the method. Accordingly, this recitation is not given patentable weight. See *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 403-04 (Fed. Cir. 1983).

13. Claims 5, 14 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li in view of Ciampi (U.S. 7,167,837).

As to claim 5, Li shows all elements of claim 1.

Li does not specifically show wherein the plurality of statistic types that does not include certain statistic types that were eliminated using a correlation analysis.

Ciampi teaches wherein the plurality of statistic types that does not include certain statistic types that were eliminated using a correlation analysis (col. 9, lines 5-12 and 38-60, showing significant statistic types, implying elimination of nonsignificant statistic types and col. 3, lines 14-26, showing relation between statistical significance and correlation).

It would have been obvious to one of ordinary skill in the art to have modified the invention disclosed in Li by the teaching of Ciampi in order to provide a more accurate method of valuing financial instruments (col. 2, lines 31-34).

As to claim 14, Li shows all elements of claim 11.

Li does not specifically show wherein the equation comprises a weighted average of results produced from a plurality of additional equations created using regression techniques.

Ciampi teaches wherein the equation comprises a weighted average of results produced from a plurality of additional equations created using regression techniques (col. 5, line 59 through col. 6, line 57).

It would have been obvious to one of ordinary skill in the art to have modified the invention disclosed in Li by the teaching of Ciampi in order to provide a more accurate method of valuing financial instruments (col. 2, lines 31-34).

As to claim 21, Li shows all elements of claim 19.

Li does not specifically show wherein the equation comprises a weighted average of results produced from a plurality of additional equations; and wherein each of the plurality of additional equations is created using regression techniques.

Ciampi teaches wherein the equation comprises a weighted average of results produced from a plurality of additional equations; and wherein each of the plurality of additional equations is created using regression techniques (col. 5, line 59 through col. 6, line 57).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the invention disclosed in Li by the teaching of Ciampi in order to provide a more accurate method of valuing financial instruments (col. 2, lines 31-34).

14. Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li in view of admitted prior art.

Examiner notes the following discussion of Official Notice taken from the MPEP:

To adequately traverse such a finding, an applicant must specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art. See 37 CFR 1.111(b). See also *Chevenard*, 139 F.2d at 713, 60 USPQ at 241 ("[I]n the absence of any demand by appellant for the examiner to produce authority for his statement, we will not consider this contention."). A general allegation that the claims define a patentable invention without any reference to the examiner's assertion of official notice would be inadequate. If applicant adequately traverses the examiner's assertion of official notice, the examiner must provide documentary evidence in the next Office action if the rejection is to be maintained. See 37 CFR 1.104(c)(2). See also *Zurko*, 258 F.3d at 1386, 59 USPQ2d at 1697 ("[T]he Board [or examiner] must point to some concrete evidence in the record in support of these findings" to satisfy the substantial evidence test). If the examiner is relying on personal knowledge to support the finding of what is known in the art, the examiner must provide an affidavit or declaration setting forth specific factual statements and explanation to support the finding. See 37 CFR 1.104(d)(2). If applicant does not traverse the examiner's assertion of official notice or applicant's traverse is not adequate, the examiner should clearly indicate in the next Office action that the common knowledge or well-known in the art statement is taken to be admitted prior art because applicant either failed to traverse the examiner's assertion of official notice or that the traverse was inadequate. If the traverse was inadequate, the examiner should include an explanation as to why it was inadequate. (MPEP § 2144.03(C))

Applicant's silence to Examiner's taking of official notice is the same as Applicant not "specifically pointing out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art." For these reasons, the following are taken to be admitted prior art:

- selling short is a technique used by investors who try to profit from the falling price of a stock and further that a stock that is overvalued is considered priced too high and is expected to fall. Conversely, the price of a stock that is undervalued is expected to rise, leading to a purchase with the expectation of that stock increasing in value (claims 10 and 12).

As to claim 10, Li shows all elements of claim 1. Li further teaches for the at least some of the plurality of stocks, identifying an overvalued set of stocks and an undervalued set of stocks based upon an equation (col. 5, lines 51-54).

Li does not specifically show selling short, buying or selling futures contracts on, or buying or selling options on at least some stocks in the overvalued set of stocks; and buying, buying or selling futures contracts on, or buying or selling options on at least some stocks in the undervalued set of stocks.

Applicant admits as prior that it is well known in the art that selling short is a technique used by investors who try to profit from the falling price of a stock and further that a stock that is overvalued is considered priced too high and is expected to fall. Conversely, the price of a stock that is undervalued is expected to rise, leading to a purchase with the expectation of that stock increasing in value.

As to claim 12, Li shows all elements of claim 11. Li further shows for the at least some of the plurality of stocks, identify an overvalued set of stocks and an undervalued set of stocks based upon the equation (col. 5, lines 51-54).

Li does not specifically show sell short, buy or sell futures contracts on, or buy or sell options on at least some stocks in the overvalued set of stocks; and buy, buy or sell futures contracts on, or buy or sell options on at least some stocks in the undervalued set of stocks.

Applicant admits as prior that it is well known in the art that selling short is a technique used by investors who try to profit from the falling price of a stock and further that a stock that is overvalued is considered priced too high and is expected to fall. Conversely, the price of a stock that is undervalued is expected to rise, leading to a purchase with the expectation of that stock increasing in value.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carol See whose telephone number is (571)272-9742. The examiner can normally be reached on Monday - Thursday 6:45 am - 5:15 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Dixon, can be reached on (571) 272-6803. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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